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(Original Signature of Member)

118TH CONGRESS  
1ST SESSION

# H. R.

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To codify the Institute for Telecommunication Sciences and to direct the Assistant Secretary of Commerce for Communications and Information to establish an initiative to support the development of emergency communication and tracking technologies, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

M\_\_\_\_ introduced the following bill; which was referred to the Committee on \_\_\_\_\_

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# A BILL

To codify the Institute for Telecommunication Sciences and to direct the Assistant Secretary of Commerce for Communications and Information to establish an initiative to support the development of emergency communication and tracking technologies, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Institute for Tele-  
5 communication Sciences Codification Act” or the “ITS  
6 Codification Act”.

1 **SEC. 2. INSTITUTE FOR TELECOMMUNICATION SCIENCES.**

2 (a) FINDINGS.—Congress finds the following:

3 (1) The test center within the National Tele-  
4 communications and Information Administration (in  
5 this subsection referred to as the “NTIA”) rep-  
6 resents executive branch agencies on spectrum issues  
7 before the Federal Communications Commission.

8 (2) Understanding radio frequency propagation  
9 characteristics and modeling is a critical component  
10 of making spectrum decisions.

11 (3) Federal agencies rely on expert engineering  
12 studies, simulations, and analyses to make deter-  
13 minations about how to make spectrum available for  
14 commercial use, including through system reloca-  
15 tions and identifying spectrum sharing opportunities  
16 through the NTIA.

17 (4) Clearing of Federal spectrum, when fea-  
18 sible, is the priority action to take to make Federal  
19 spectrum available for commercial uses as required  
20 by section 113(j)(1) of the National Telecommuni-  
21 cations and Information Administration Organiza-  
22 tion Act (47 U.S.C. 923(j)(1)).

23 (5) Sharing of Federal spectrum between Fed-  
24 eral entities and commercial entities provides access  
25 to Federal spectrum for commercial uses in cir-  
26 cumstances where clearing is not feasible.

1 (6) The test center within the NTIA is the Gov-  
2 ernment’s premier expert laboratory for spectrum re-  
3 search activities, spectrum sharing innovation and  
4 testing, spectrum interference studies, and all activi-  
5 ties related to advancing next generation wireless  
6 technologies.

7 (7) The test center within the NTIA is critical  
8 for undertaking engineering studies and analyses  
9 that inform clearing or sharing opportunities and fa-  
10 cilitate policy decisions to maximize the efficient use  
11 of spectrum resources.

12 (b) OPERATION OF TEST CENTER.—Part A of the  
13 National Telecommunications and Information Adminis-  
14 tration Organization Act (47 U.S.C. 901 et seq.) is  
15 amended by adding at the end the following:

16 **“SEC. 106. INSTITUTE FOR TELECOMMUNICATION**  
17 **SCIENCES.**

18 “(a) ESTABLISHMENT.—

19 “(1) IN GENERAL.—Under the authority pro-  
20 vided to the Assistant Secretary under section 103,  
21 the Assistant Secretary shall operate a test center to  
22 be known as the Institute for Telecommunication  
23 Sciences (in this section referred to as ‘ITS’).

24 “(2) FUNCTIONS.—

1           “(A) IN GENERAL.—In addition to any  
2 functions delegated by the Assistant Secretary  
3 under subparagraph (B), ITS shall serve as the  
4 primary laboratory for the executive branch of  
5 the Federal Government to—

6           “(i) study radio frequency emissions,  
7 including technologies and techniques to  
8 control such emissions and interference  
9 caused by such emissions;

10          “(ii) determine spectrum propagation  
11 characteristics;

12          “(iii) conduct tests on technology that  
13 enhances the sharing of electromagnetic  
14 spectrum between Federal and non-Federal  
15 users;

16          “(iv) improve the interference toler-  
17 ance of Federal systems operating with, or  
18 using, Federal spectrum;

19          “(v) promote activities relating to ac-  
20 cess to Federal spectrum by non-Federal  
21 users and the sharing of Federal spectrum  
22 between Federal and non-Federal users;  
23 and

1                   “(vi) conduct such other activities as  
2                   determined necessary by the Assistant Sec-  
3                   retary.

4                   “(B) ADDITIONAL FUNCTIONS.—The As-  
5                   sistant Secretary may delegate to ITS any of  
6                   the functions assigned to the Assistant Sec-  
7                   retary under section 103(b)(1).

8                   “(3) AGREEMENTS AND TRANSACTIONS.—In  
9                   carrying out the functions described in paragraph  
10                  (2), the Assistant Secretary, acting through the head  
11                  of ITS, may enter into agreements as provided  
12                  under the following authorities:

13                  “(A) Sections 11 and 12 of the Stevenson–  
14                  Wydler Technology Innovation Act of 1980.

15                  “(B) Section 1535 of title 31, United  
16                  States Code.

17                  “(C) Sections 207 and 209 of title 35,  
18                  United States Code.

19                  “(D) Section 103(b)(2) of this Act.

20                  “(E) Section 113(g) of this Act.

21                  “(F) The first undesignated section of  
22                  Public Law 91–412.

23                  “(G) As authorized in any other Federal  
24                  statute.

1           “(4) FEDERAL SPECTRUM DEFINED.—In this  
2 subsection, the term ‘Federal spectrum’ means fre-  
3 quencies assigned on a primary basis to a Federal  
4 entity (as defined in section 113(l)).

5           “(b) EMERGENCY COMMUNICATION AND TRACKING  
6 TECHNOLOGIES INITIATIVE.—

7           “(1) ESTABLISHMENT.—The Assistant Sec-  
8 retary, acting through the head of ITS, shall estab-  
9 lish an initiative to support the development of  
10 emergency communication and tracking technologies  
11 for use in locating trapped individuals in confined  
12 spaces, such as underground mines, and other  
13 shielded environments, such as high-rise buildings or  
14 collapsed structures, where conventional radio com-  
15 munication is limited.

16           “(2) ACTIVITIES.—In order to carry out this  
17 subsection, the Assistant Secretary, acting through  
18 the head of ITS, shall work with private sector enti-  
19 ties and the heads of appropriate Federal agencies,  
20 to—

21           “(A) perform a needs assessment to iden-  
22 tify and evaluate the measurement, technical  
23 specifications, and conformity assessment needs  
24 required to improve the operation and reliability

1 of such emergency communication and tracking  
2 technologies; and

3 “(B) support the development of technical  
4 specifications and conformance architecture to  
5 improve the operation and reliability of such  
6 emergency communication and tracking tech-  
7 nologies.

8 “(3) REPORT.—Not later than 18 months after  
9 the date of the enactment of this section, the Assist-  
10 ant Secretary shall submit to Congress, and make  
11 publicly available, a report on the assessment per-  
12 formed under paragraph (2)(A).”.